

## REMARKS

The title and abstract have been revised to conform more closely to the pending claims.

The specification has been revised to clarify the description and to correct various self-evident errors in grammar, punctuation, spelling, capitalization (lower-case/upper-case), figure identification, and reference-symbol usage including omitted reference symbols. Note the following items relating to the specification revisions.

Input buffer 48 contains multiple sub-buffers, thirty-two in the preferred embodiment as described on page 32 of the specification. In the paragraph bridging pages 7 and 8, the specification states that buffer 48 is a first-in/first-out ("FIFO") buffer. A FIFO has only one location at which data is accessed. Although certain portions of buffer 48 act as FIFOs for software purposes, the audio and video sub-buffers of buffer 48 are not implemented as FIFOs in hardware because the messages (tags) generated by stream demultiplexer 26 identify the locations where the encoded audio and video data is stored in buffer 48. There would be no need to provide such storage information if the audio and video portions of buffer 48 were hardware FIFOs. In light of this, references to buffer 48 as being a FIFO have been deleted from the specification<sup>1</sup>.

In the paragraph bridging pages 7 and 8 of the specification, the statement that "SD 26 removes header 208, DTS 210 and PTS 212 from each packet 208" has been corrected to recite that "SD 26 removes PES control field 218, DTS 210 and PTS 212 from each packet 206" since, as discussed earlier on page 7 and shown in Figs. 2A and 2B, PES control field 218 is part of video data packet 206 but header 208 is not part of data packet 206. The clause in the paragraph bridging pages 7 and 8 that "audio decoder 34 and video decoder 36 receive only the payload 214 of data packet 206" has been corrected to delete the reference to "audio decoder 34" since data packet 206 is a video data packet and thus is not supplied to audio decoder 34.

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<sup>1</sup> Message queue "106" (renumbered "120" as described below) is one of the sub-buffers of buffer 48. At page 26 of the specification, message queue 106 is described as a FIFO and thus functions at least in software as a FIFO. The references to message queue "106" as being a FIFO had been retained in the specification since message queue "106" could be implemented in hardware as a FIFO.

The first full paragraph on page 9 has been revised to indicate that video output processor 40 receives signal "VsyncPhase" from timer 30 as shown in Fig. 1.

The last sentence in the first full paragraph on page 14 recites that "Unlike the video bit streams, the audio bit streams do not contain unique and identifiable start code patterns (sync words), making it difficult to detect the start of an audio data frame". Inasmuch as the first full paragraph on page 15 recites that the audio data stream contains sync words, the quoted material from the first full paragraph on page 14 means that sync words are present in the audio bit stream but are simply not uniquely individually identifiable from the actual audio data.

More particularly, an audio sync word has the bit pattern of an audio level. Taking advantage of the fact that sound varies and is highly unlikely to be the same for three (consecutive) audio frames, the identification of three (consecutive) occurrences of a bit pattern for an audio sync word indicates that the bit pattern is indeed an audio sync word and not a corresponding audio level. See the first full paragraph on page 14. In light of the fact that the audio bit stream does indeed contain audio sync words, the last sentence in the first full paragraph on page 14 has been revised to recite that "The audio bit streams contain start code patterns (sync words), but they are not individually uniquely identifiable from the actual audio data, thereby making it difficult to detect the start of an audio data frame".

The second full paragraph on page 16 has been revised to include the sentence that "Audio buffer 100 is part of input buffer 48" in conformity with the paragraph bridging pages 22 and 23 that buffer 48 includes a sub-buffer for audio. The second full paragraph on page 16 has also been revised to identify items 104 and 106 illustrated in Fig. 5.

In the first full paragraph on page 17, the sentence dealing with the message queue in buffer 48 has been revised to include a parenthetical reference to Fig. 9 which illustrates that message queue and is described later in the specification.

Input buffer 48 from which information is supplied to audio decoder 34 and video decoder 36 has an audio sub-buffer and a video sub-buffer as provided on page 23 of the specification. Output buffer 50 which receives the decoded information from decoders 34 and 36 likewise has an audio sub-buffer and a video sub-buffer. In light of this, the phrase "the audio input and output buffers" in the second full paragraph on page 18 has been clarified to recite "the audio portions of input buffer 48 and output buffer 50".



A phrase has been added to the second full paragraph on page 22 to provide that stream demultiplexer 26 connects to descrambler 28 as shown in Fig. 6.

Beginning with the second full paragraph on page 22, memory management unit "50", host bus interface "52", and network port/DVD controller "54" have been respectively renumbered "60", "62", and "64" since reference symbols "50", "52", and "54" are respectively utilized earlier to identify the output buffer, the network interface, and the control CPU in Fig. 1. Similarly, byte stream "100" has been renumbered "80" beginning at page 25 since reference symbol "100" is employed in Fig. 5 to identify the audio input buffer. Beginning on page 26, message queue "106" and tag "108" have been respectively renumbered "120" and "122" since reference symbol "106" is utilized in Fig. 5 to represent an audio message (tag).

Accompanying this amendment is an amendment for revising the drawings. The revisions to the drawings bring the drawings, specifically Figs. 6, 8, and 9, into conformity with the preceding reference-symbol changes.

Please telephone Attorney for Applicant(s) at 650-964-9767 if there are any questions.

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